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Interview Summary

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Application No: 09/541,631

Name of Applicant: Alan Balkany

Name of Examiner: Baoquoc N To

Date of Interview: 2004 Jan 22

Type of Interview: Telephonic

Names of Participants: Applicant: Alan Balkany, Examiner: Baoquoc N To,
Applicant's Attorney: Christopher Voci

Exhibit or Demonstration: Figures from application and prior art were compared to illustrate differences

Prior Art Discussed: Bugajski (US Patent No. 5,593,667)

Agreements: Examiner agreed that claims 1 and 6 had novel features over Bugajski, but examiner did not make a decision about the allowability of these claims at the interview.

1. Description of Exhibit

Figure 3 in the application was compared with figures 2 and 3 in Bugajski, to illustrate the novel features of claims 1 and 6 in the application.

2. Claims Discussed

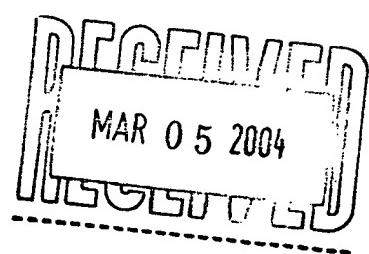
Claims 1 and 6 were discussed.

3. Prior Art Discussed

Figures 2 and 3 of Bugajski (US Patent No. 5,593,667) were discussed.

4. Principle Proposed Amendments

Claim 1 was amended and a sentence was inserted into the specification to clarify the essence of this feature: That a sequence of a plurality of tuples, of arbitrary length, can be described by a single entry, which uses the length of said sequence.



Claim 6 was amended to clarify the essence of this feature: That trees contain leaf nodes, which are distinct from dictionaries that contain said leaf nodes' values.

5. Principle Arguments Presented to Examiner

Claim 1's method saves space by representing an arbitrarily-long tuple sequence, by a single entry that uses the sequence length. Applicant contrasted tuple representation in the application (figure 3) with tuple representation in Bugajski (figures 2 and 3).

(65, figure 3) in the application shows a single entry representing a tuple sequence of length 9. ("Run Length" in the figure is the sequence length). (For comparison with the method used in prior art, this same tuple sequence is shown as tokens 2-10 in (56, figure 2) in the application.)

In Bugajski, figure 3, the tuple representation is illustrated in the top node, which shows tuples at indexes 111-115. There is a separate entry for each tuple, and no sequence length is used to represent a tuple sequence. The same observation can be made about Bugajski, figure 2.

Since claim 1's use of a sequence length is unique, the claim is allowable.

Claim 6's method saves space by separating tree leaves and dictionaries, so that a plurality of trees can share a single set of dictionaries. Applicant contrasted leaf and dictionary representations in the application (figure 3) with leaf and dictionary representation in Bugajski (figure 3).

(61, figure 3) in the application are the leaves of the tree, each representing a field or column of a table. (60, figure 3) in the application are the dictionaries, each of which contains the set of possible values in a corresponding leaf. A dictionary associates a token (or index) with each unique value.

Each leaf uses actual or implied indexes into a dictionary to represent values, rather than wasting space by maintaining copies of the values. For example, the leaf in (66, figure 3) in the application contains counts of (3, 6, 3) for the dictionary values at the corresponding indexes (0, 1, 2).

Thus, the leaf shows that there's a count of 3 for "Plymouth", a count of 6 for "Detroit", and count of 3 for "Pontiac". A second "City" node in another tree could share the same dictionary, thus saving space by the separation of leaves and dictionaries.

In Bugajski, figure 3, the leftmost two nodes are leaf nodes. Every index contains a copy of the field value associated with it. Here, the leaves *are* the dictionaries, and a second tree using this method would duplicate the field values.

Since claim 6's separation of tree leaves and dictionaries is unique, the claim is allowable.

6. Outcome

Examiner agreed that the use of a sequence length in claim 1 was unique. Examiner agreed that the separation of tree leaves and dictionaries in claim 6 was unique. Examiner did not make a decision whether claims 1 and 6 were allowable at the interview.



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